

Customer No. 24498  
Attorney Docket No. SCP061774  
Final Office Action Dated: November 4, 2009

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Applicants: Jean-Philippe Borel

Examiner: Kaveh Abrishamkar

Serial No: 09/980,503

Group Art Unit: 2431

Filed: March 6, 2002

Docket: SCP061774

For: DEVICE FOR PAY COMMUNICATION WITH DOUBLE DESCRAMBLING, IN  
PARTICULAR OF TELEVISION IMAGES

**APPEAL BRIEF**

**Mail Stop Appeal Brief-Patents**  
Hon. Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Applicants appeal the status of claims 1, 3-6 and 10-12 as presented in response to the Office Action dated November 21, 2008, and finally rejected in the Office Action dated November 4, 2009 pursuant to the Notice of Appeal filed on February 4, 2010 and submit this appeal brief. Please charge the fee for the Appeal Brief, and any other fees due, to deposit account 07-0832.

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not disclose or render obvious a second management means that receives access control messages which allow conversion of scrambled signals

C. Whether Claim 10 is Anticipated Under 35 U.S.C. §102(e) in View of Gurantz

C1. Gurantz does not anticipate claim 10 at least because Gurantz does not disclose a demultiplexer including a plurality of descrambler devices

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**PATENT****1. Real Party in Interest**

The real party in interest is THOMSON LICENSING S.A., the assignee of the entire right title and interest in and to the subject application by virtue of an assignment recorded with the Patent Office on March 6, 2002 at reel/frame 012688/0795.

**2. Related Appeals and Interferences**

None.

**3. Status of Claims**

Claims 1, 3-6 and 10-12 are pending. Claims 2 and 7-9 remain canceled without prejudice. Claims 1, 3-6 and 10-12 stand rejected and are under appeal.

A copy of the claims 1, 3-6 and 10-12 is presented in Section 8 below.

**4. Status of Amendments**

An amendment under 37 CFR §1.111, sent to the PTO on March 16, 2009 in response to the non-final Office Action dated November 21, 2008, was not entered. An amendment under 37 C.F.R. §1.111, sent to the PTO on July 1, 2009 in response to a Notice of Non-Compliant Amendment dated June 2, 2009, was entered. No Responses/Amendments were filed subsequent to the above-referenced Amendment sent on July 1, 2009.

**5. Summary of Claimed Subject Matter**

Claim 1 is directed to a pay-per-use communication device (see, e.g., Specification, FIG. 2), in particular for television pictures (see, e.g., Specification, p. 1, lines 6-9), including: at

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least two input interfaces (see, e.g., elements E1, E2, FIG. 2) for receiving first and second scrambled signals bearing information subject to pay-per-use (see, e.g., FIG. 2, p. 1, lines 11-23); first and second processing pathways (see, e.g., elements 11-16 and 21-26, FIG. 2) having respective first and second descrambling modules (see, e.g., elements 16 and 26) able to undertake the conversion of the first and second scrambled signals into first and second descrambled signals and provide the descrambled signals to at least two output interfaces (see, e.g., S1 and S2, FIG. 2) (see, e.g., p. 10, lines 4-16, p. 10, lines 24-30); an access control module (see, e.g., element 1, FIG. 2) able to cooperate with a memory card (see, e.g., element CA, FIG. 2) for conditioning the operation of the first and second processing pathways (see, e.g., p. 10, lines 4-16; p. 10, line 32 to p. 11, line 5), the first and second processing pathways comprising respective first and second management means (see, e.g., elements 10 and 20, FIG. 2) for driving the conversions of the first and second scrambled signals via selected ones of the first and second descrambling modules (see, e.g., p. 3, lines 5-16; p. 7, lines 13-21; p. 7, lines 27-31; p. 10, lines 24-30), and in that the first management means is arranged to communicate with the access control module to obtain a first access control message (CW1) for allowing conversion of the first scrambled signals (see, e.g., FIG. 3; p. 9, lines 16-23; p. 10, lines 4-16; p. 10, lines 24-27; p. 10, lines 37-39), and the second management means is arranged to communicate with the access control module by way of the first management means to obtain a second access control message (CW2) for allowing conversion of the second scrambled signals (see, e.g., FIG. 3; p. 9, line 35 to p. 10, line 2; p. 10, lines 27-30; p. 10, line 39 to p. 11, line 5).

In claim 11, which depends from claim 1, the first and second access control messages perform cryptographic functions (see, e.g., p. 10, lines 12-16).

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Further, in claim 12, which depends from claim 11, the first and second access control messages depend on a single descrambling key and on conditional access messages (see, e.g., p. 10, lines 12-16).

Claim 10 is directed to a pay-per-use communication device (see, e.g., Specification, FIG. 2) including: a tuner device, the tuner device having a tuner device output (see, e.g., element 11, FIG. 2; p. 5, lines 1-13, p. 7, lines 15-20); a demodulator device, the demodulator device having a demodulator device input operatively coupled to the tuner device output and a demodulator device output (see, e.g., element 12, FIG. 2; p. 5, lines 1-13; p. 7, lines 15-18); a demultiplexer device (see, e.g., elements 13 and 23, FIG. 2), the demultiplexer device having a demultiplexer control input (see, e.g., connection between element 10 and 13 and between element 20 and 23) and a demultiplexer device input, the demultiplexer device input being operatively coupled to the demodulator device output (see, e.g., connection between elements 12 and 13) (see, e.g., p. 5, lines 31-36; p. 7, lines 15-18; p. 7, lines 23-27), the demultiplexer device including a plurality of descrambler devices (see, e.g., elements 16 and 23), the plurality of descrambler devices having a respective plurality of descrambler device outputs (see, e.g., elements U1, V1, FIG. 3, p. 5, lines 36-39; p. 10, lines 24-30); a plurality of decoding block devices, the plurality of decoding block devices including a respective plurality of decoding block device inputs, the plurality of decoding block device inputs being respectively operatively coupled to the plurality of demultiplexer device outputs (see, e.g., elements 14, 24; FIG. 2; p. 6, lines 15-23; p. 7, lines 15-18; p. 7, lines 23-27); and a controller device, the controller device having a controller device output, the controller device output being operatively coupled to the demultiplexer control input (see, e.g., connection between elements 10 and 13 and

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between elements 20 and 23, FIG. 2; p. 9, line 16 to p. 20, line 2).

**6. Grounds of Rejection to be Reviewed on Appeal**

Claims 1 and 3-6 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,936,660 to Gurantz (hereinafter 'Gurantz') in view of U.S. Patent No. 6,349,140 to Ushiyama (hereinafter 'Ushiyama').

Claim 10 stands rejected under 35 U.S.C. §102(e) as being anticipated by Gurantz.

Claims 11 and 12 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Gurantz in view of Ushiyama in further view of U.S. Patent No. 6,289,314 to Matsuzaki et al. (hereinafter 'Matsuzaki').

Regarding the grouping of the claims, claims 3-6 stand or fall with claim 1, due to their respective dependencies. In addition, while claim 11 may stand with claim 1 due to its dependency from claim 1, claim 11 may only fall by itself. Similarly, while claim 12 may stand with claim 1 and/or claim 11 due to its dependency from claims 1 and 11, claim 12 may only fall by itself.

**7. Argument****A. Introduction**

In general, embodiments of the present invention are directed to converter devices that descramble pay-per-use media (see, e.g., Specification, p. 1, lines 6-29). In particular, exemplary aspects of the present invention are drawn toward converter devices that are capable of descrambling media signals from a plurality of different sources (see, e.g., Specification, p. 8, lines 17-24; E1, E2, FIG. 2). As discussed in detail below, the claims of the present application recite



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various features related to pay-per-use communication devices in accordance with exemplary embodiments of the present invention that are not disclosed or rendered obvious by the references cited by the Examiner. Accordingly, it is respectfully asserted that claims 1, 3-6 and 10-12 are patentably distinct and non-obvious over the cited references for at least the reasons discussed herein below.

**B. Whether Claims 1 and 3-6 are Unpatentable Under 35 U.S.C. §103(a) Over Gurantz in View of Ushiyama.**

Claimed subject matter is unpatentable under 35 U.S.C. 103(a) "if the differences between the subject matter sought to be protected and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." KSR International Co. v. Teleflex, Inc., 127 S.Ct.1727, 1734 (quoting 35 U.S.C. 103(a)). Claim 1 in its entirety recites:

Pay-per-use communication device, in particular for television pictures, comprising:

- at least two input interfaces for receiving first and second scrambled signals bearing information subject to pay-per-use,
- first and second processing pathways having respective first and second descrambling modules able to undertake the conversion of the first and second scrambled signals into first and second descrambled signals and provide the descrambled signals to at least two output interfaces, and
- an access control module able to cooperate with a memory card for conditioning the operation of the first and second processing pathways,

the first and second processing pathways comprising respective first and second management means for driving the conversions of the first and second scrambled signals via selected ones of the first and second descrambling modules, and in that the first management means is arranged to communicate with the access control module to obtain a first access control message for allowing conversion of the first scrambled signals, and the second management means is arranged to communicate

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with the access control module by way of the first management means to obtain a second access control message for allowing conversion of the second scrambled signals.

It is respectfully submitted that claim 1, from which claims 3-6 depend, is patentable over Gurantz and Ushiyama, as the references fail to disclose or render obvious several features of claim 1. First, the cited combination of references as proposed by the Examiner in support of the rejections does not result in a pay-per-use communication device as recited in claim 1. Second, neither Gurantz nor Ushiyama, taken singly or in combination, disclose or render obvious the use of two separate management means to drive the conversion of different scrambled signal through separate descramblers. Third, Gurantz and Ushiyama does not disclose or render obvious that the second management means receives access control messages that allow the conversion of scrambled signals.

B1. Claims 1 and 3-6 are patentable over Gurantz and Ushiyama because the proposed combination of Gurantz and Ushiyama does not result in a pay-per-use communication device.

In support of the rejection of claim 1, the Examiner has admitted that Gurantz does not disclose the use of first and second management means, as recited in claim 1, and relies on Ushiyama to cure the deficiencies of Gurantz, asserting that it would be obvious to use two management systems as disclosed in Ushiyama in the environment of Gurantz to achieve cost benefits and flexibility of requesting pay channels in different rooms (see, e.g., Final Office Action of November 4, 2009 (hereinafter 'FOA'), p. 7, para. 4 to p. 9, para. 1).

However, it is respectfully submitted that combining Ushiyama with Gurantz would result in the use of a plurality of separate devices as opposed to a single communication device

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recited in claim 1. Although Gurantz discloses the use of multiple converter chains within a single converter box (see, e.g., Gurantz, Abstract; FIG. 3), Ushiyama is directed to a system that uses a plurality of different devices in different locations. For example, Ushiyama describes using a parent subscriber terminal (FIG. 5) at one location to perform normal operations of a converter box, such as receiving and descrambling signals, etc. (see, e.g., Ushiyama, FIGS. 5 and 6; column 5, line 23 to column 6, line 9), while using child units (FIG. 9) in different rooms or locations to simply manage channel requests from users and receive descrambled television signals for output to the user (column 4, line 48 to column 5, line 8; column 4, lines 7-21; column 8, lines 14-45; FIG. 9). Because the Examiner interprets the child unit as including second management means requesting information by way of the parent unit (see FOA, p. 8, lines 6-9), the combination proposed by the Examiner would require adding the child units to the Gurantz system, which, in turn, would not result in a single pay-per-use communication, as recited in claim 1.

Furthermore, it should also be noted that the Examiner has not provided an adequate reason or motivation for combining the references. As noted above, the Examiner asserts that the cited combination would achieve cost benefits mentioned in Ushiyama and flexibility of requesting pay channels in different rooms. However, the improved cost referred to by Ushiyama stems from receiving subscription channels from a service provider through one terminal unit (i.e., the parent terminal unit) as opposed to several units for different televisions (see, e.g., Ushiyama, column 2, lines 46-60; column 4, lines 40-55). The combination of Ushiyama with the Gurantz system would not in any way improve costs for the Gurantz system, as the Gurantz system already includes the feature of using a single unit to receive subscription channels for different televisions (see, e.g. Gurantz, Abstract). Indeed, the addition of the child units of

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Ushiyama to the Gurantz system would increase both cost and complexity rather than reduce them. Furthermore, Gurantz also permits users to request channels from different rooms (see, e.g., Gurantz, column 2, line 59 to column 3, line 2). Thus, contrary to the Examiner's assertions otherwise, combining Ushiyama with Gurantz would increase system complexity without any added benefit. Accordingly, the Examiner has not provided an adequate reason or motivation to combine the references. Moreover, the combination does not result in a single converter box, as discussed above.

B2. Gurantz and Ushiyama do not render claims 1 and 3-6 unpatentable because the references do not disclose or render obvious two separate management means that respectively drive the conversions of scrambled signals through different descramblers.

As noted above, the Examiner has admitted that Gurantz does not disclose the use of first and second management means, as recited in claim 1, and relies on Ushiyama to cure the deficiencies of Gurantz. However, contrary to the assertions posed by the Examiner, the first and second management means of Ushiyama do not both drive the conversions of scrambled signals through different descramblers. Rather, Ushiyama discloses that only the microprocessor 34 of the parent unit drives the conversions of scrambled signals through a single descrambler 40 (see, e.g., column 6, lines 4-9). Indeed, Ushiyama emphasizes that "[s]ince the parent subscriber terminal unit 1 descrambles scrambled information and outputs the descrambled information to the child subscriber terminal unit 2, the child subscriber terminal unit 2 is not required to have the descrambling function, thereby simplifying the construction of the child subscriber terminal unit 2" (Ushiyama, column 4, lines 16-22) (emphasis added). As indicated above, the microprocessor of the child unit is relegated to merely managing and forwarding channel requests

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from users and receiving descrambled signals (see, e.g., Ushiyama, column 4, lines 7-21; column 8, lines 14-45; FIG. 9). Accordingly, neither Gurantz nor Ushiyama, taken singly or in combination, disclose or render obvious two separate management means that respectively drive the conversions of scrambled signals.

Furthermore, the references also fail to disclose or render obvious the use of two different descramblers through which conversion of scrambled signals are driven, as recited in claim 1. For example, in FIG. 3, Gurantz discloses the use of a conditional access unit including a singular descrambling function to descramble or decrypt signals for all of the conversion chains (see, e.g., Gurantz, element 110, FIG. 3; column 4, lines 36). Similarly, Ushiyama also discloses the use of a single descrambler (see, e.g., element 40, FIG. 5).

In support of the rejection of claim 1, the Examiner has alleged that the different converter chains of tuner/demodulator/decompression/modulation units of Gurantz constitute separate descramblers, as they purportedly "perform a descrambling function of taking an image which is not viewable (scrambled) and tunes, demodulates and decompresses it so that it can be output as viewable video" (FOA, p. 3, lines 9-12).

It is respectfully submitted that although the Examiner's definition of "descrambling" is one of several meanings generally applied to the term, the Examiner's interpretation of descrambling cannot be applied to the claims because it is not the proper meaning applied in the written description. Claim terms must be given their ordinary and customary meaning, which is reflected in "the use of the words in the context of the written description and customarily by those skilled in the relevant art." MPEP §2111.01 (citing Ferguson Beauregard/Logic Controls v. Mega Systems, 350 F.3d 1327, 1338 (Fed. Cir. 2003)).

Furthermore, "[w]here there are several common meanings for a claim term, the patent

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disclosure serves to point away from the improper meanings and toward the proper meanings."

§2111.01 (quoting Renishaw PLC v. Marposs Societa' per Azioni, 158 F.3d 1243, 1250, 48 USPQ2d 1117, 1122 (Fed. Cir. 1998) (emphasis added)).

Although the Specification does not explicitly use the term "decrypting," it applies a synonym of "decrypting" when it refers to "descrambling." For example, the descrambling module in embodiments of the present invention descrambles incoming signals by utilizing a descrambling key in the form of a control word, which is received by transmitting entitlement control messages (ECM) and/or entitlement management messages (EMM) to an access control module employing a smart card (see, e.g., Specification, p. 5, line 36 to p. 6, line 13). Control words, ECMs, EMM and smart cards are all means for decrypting information. This is further evidenced by the Examiner's own Reference, which describes a smart card as aiding in decryption of premium programming and describes a conditional access unit operating with a smart card as decrypting signals (see, e.g., Gurantz, column 2, lines 15-17; column 4, lines 16-17; column 4, lines 29-36). Accordingly, because the written description applies the "decryption" definition of descrambling, the "decryption" meaning should be applied to the claims rather than the improper, alternative meaning of changing an image signal in a transmission format to a viewable image signal formatted for display on a particular display device, as applied by the Examiner. As such, it is respectfully submitted that Gurantz and Ushiyama does not disclose or render obvious the use of different descramblers by two separate management means to drive the conversions of scrambled signals.

B3. Claims 1 and 3-6 are patentable over Gurantz and Ushiyama, as the references do not disclose or render obvious a second management means that receives access control messages

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which allow conversion of scrambled signals.

Claim 1 recites that "the second management means is arranged to communicate with the access control module by way of the first management means to obtain a second access control message for allowing conversion of the second scrambled signals." As discussed above, the Examiner has admitted that Gurantz does not disclose a second management means, as recited in claim 1, and cites Ushiyama as curing its deficiencies. In particular, the Examiner indicates that the child unit includes a second management means that relays requests via the parent unit and that the signal b of Ushiyama corresponds to the access control message (see FOA, p. 8, lines 6-15).

However, as discussed above, the child unit is relegated to managing channel requests and receiving descrambled television signals (see, e.g., Ushiyama, column 4, lines 7-21; column 8, lines 14-45; FIG. 9). The child unit does not in any way convert scrambled signals nor does it receive any access control messages for allowing conversion of scrambled signals. Furthermore, contrary to the Examiner's assertions otherwise, signal b is not an access control message; rather, signal b is the descrambled, converted TV signal that is eventually output to a television (see, e.g., Ushiyama FIGS. 4 & 12; column 9, lines 3-16; column 9, lines 37-40). Thus, Gurantz and Ushiyama, taken singly or in combination, fail to disclose or render obvious a second management means that receives access control messages which allow conversion of scrambled signals.

Accordingly, claim 1 is patentable over Gurantz and Ushiyama, taken singly or in combination, for at least the reasons discussed above. Moreover, claim 3-6 are also patentable over Gurantz and Ushiyama due at least to their dependencies from claim 1. As such, withdrawal of the rejection is respectfully requested.

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**C. Whether Claim 10 is Anticipated Under 35 U.S.C. §102(e) in View of Gurantz.**

C1. Gurantz does not anticipate claim 10 at least because Gurantz does not disclose a demultiplexer including a plurality of descrambler devices

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Claim 10 in its entirety recites:

A pay-per-use communication device comprising:

a tuner device, said tuner device having a tuner device output,

a demodulator device, said demodulator device having a demodulator device input operatively coupled to said tuner device output and a demodulator device output;

a demultiplexer device, said demultiplexer device having a demultiplexer control input and a demultiplexer device input, said demultiplexer device input being operatively coupled to said demodulator device output, said demultiplexer device including a plurality of descrambler devices, said plurality of descrambler devices having a respective plurality of descrambler device outputs;

a plurality of decoding block devices, said plurality of decoding block devices including a respective plurality of decoding block device inputs, said plurality of decoding block device inputs being respectively operatively coupled to said plurality of demultiplexer device outputs; and

a controller device, said controller device having a controller device output, said controller device output being operatively coupled to said demultiplexer control input

As discussed above with regard to claim 1, Gurantz does not disclose or render obvious employing a plurality of descrambler devices, as recited in claim 1. In support of the rejection of



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claim 10, the Examiner asserts that the RF modulation units 108 constitute descramblers because, "without the RF modulation units, the televisions would receive an unviewable image." (FOA, p. 4, lines 8-11). The Examiner here again relies on the alternative, improper meaning of descrambling applied in the rejection of claim 1.

However, as discussed above, "[w]here there are several common meanings for a claim term, the patent disclosure serves to point away from the improper meanings and toward the proper meanings." §2111.01 (quoting Renishaw PLC v. Marposs Societa' per Azioni, 158 F.3d 1243, 1250, 48 USPQ2d 1117, 1122 (Fed. Cir. 1998) (emphasis added)). As stated above, because the written description applies the "decryption" meaning of descrambling, it is this meaning that should be applied to the claims rather than the improper, alternative meaning of changing a viewable image to a viewable image, as applied by the Examiner. Furthermore, in light of the Specification, it is clear that the RF modulation units are not descramblers, as claimed, because the Specification explicitly distinguishes descrambler devices 16 and 23 from video decoder units 15 and 25, which in effect perform the same function as the RF modulation units of Gurantz (compare Specification, p. 6, lines 19-27 with Gurantz, column 4, lines 36-40).

Accordingly, claim 10 is not anticipated by Gurantz at least because Gurantz does not disclose a demultiplexer including a plurality of descrambler devices, as claimed in claim 10. As such, withdrawal of the rejection is respectfully requested.

**D. Whether Claim 11 is Unpatentable Under 35 U.S.C. §103(a) Over Gurantz in View of Ushiyama in Further View of Matsuzaki.**

D1. Claim 11 is patentable over Gurantz, Ushiyama and Matsuzaki, as the references fail to render obvious a second management means that receives access control messages which

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perform cryptographic functions.

Claimed subject matter is unpatentable under 35 U.S.C. 103(a) "if the differences between the subject matter sought to be protected and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." KSR International Co. v. Teleflex, Inc., 127 S.Ct.1727, 1734 (quoting 35 U.S.C. 103(a)). Claim 11 depends from claim 1 and includes a "second management means [that] is arranged to communicate with the access control module by way of the first management means to obtain a second access control message for allowing conversion of the second scrambled signals." As such, claim 11 is patentable due at least to its dependency from claim 1. Claim 11 further recites that the second access control message performs cryptographic functions.

In support of the rejection, the Examiner has admitted that Gurantz and Ushiyama do not disclose that the access control messages perform cryptographic functions, as recited in claim 11 (see FOA, p. 12, lines 13-15). To cure the deficiencies of Gurantz and Ushiyama, the Examiner relies on Matsuzaki, stating that Matsuzaki discloses access control messages that perform cryptographic operations and that it would be obvious to use the access control messages in Matsuzaki to "more safely distribute information to a specific terminal" (see FOA, p. 12, lines 15-21).

It is respectfully submitted that it would not be obvious to employ the purported access control messages of Matsuzaki within a single communication device, as claimed. Matsuzaki teaches that a server at a receiver station rescrambles a television signal ('pay information') using a random number (purported access control message) that is sent to separate terminals requesting the television signal through the server for descrambling the rescrambled signal (see, e.g.,

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Matsuzaki, column 3, line 51 to column 4, line 18; column 7, line 16 to column 8, line 22). As indicated by the Examiner, rescrambling the signal ensures safe or secure distribution to the different terminals connected to the receiver station (see, e.g., Matsuzaki, column 8, lines 18-22). In other words, even if the external connections between the server and a terminal were tapped, the signals could not be viewed without an authorized terminal due to the rescrambling of the signals. However, as noted above, claim 1, and also claim 11, is directed to single pay-per-use communication device. Thus, there would be no reason whatsoever for rescrambling the signals between processing paths within the same device, because the rescrambling would not provide any additional security to the signals.

For example, tapping into a connection between processing paths of a single device would require a user to open the device, examine the hardware and find the connection between processing paths. However, if a user were able to tap into this connection, the user would also be able to tap into the connection between descrambler ('receiver portion') and the rescrambler module ('distributing portion') to obtain a descrambled signal (see, e.g., Matsuzaki, column 7, lines 41-42). As such, it would not be obvious to apply the rescrambling method of Matsuzaki to a single device because the application would afford no benefit whatsoever and, in turn, would unnecessarily increase the complexity and cost of the device.

Accordingly, claim 11 is patentable over Gurantz, Ushiyama and Matsuzaki, taken singly or in combination for at least the reasons discussed above. As such, withdrawal of the rejection is respectfully requested.

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**E. Whether Claim 12 is Unpatentable Under 35 U.S.C. §103(a) Over Gurantz in View of Ushiyama in Further View of Matsuzaki.**

E1. Claim 12 is patentable over Gurantz, Ushiyama and Matsuzaki, as the references fail to render obvious a second management means that receives access control messages which depend on a single descrambling key and on conditional access messages.

Claimed subject matter is unpatentable under 35 U.S.C. 103(a) "if the differences between the subject matter sought to be protected and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." KSR International Co. v. Teleflex, Inc., 127 S.Ct.1727, 1734 (quoting 35 U.S.C. 103(a)). Claim 12 depends from claim 1 and includes a "second management means [that] is arranged to communicate with the access control module by way of the first management means to obtain a second access control message for allowing conversion of the second scrambled signals." As such, claim 12 is patentable due at least to its dependency from claim 1, and also from claim 11. Claim 12 further recites that the second access control message depends on a single descrambling key and on conditional access messages.

In support of the rejection, the Examiner has admitted that Gurantz and Ushiyama do not disclose that the access control messages perform cryptographic functions (see FOA, p. 12, lines 13-15). Similar to the rejection of claim 11, to cure the deficiencies of Gurantz and Ushiyama, the Examiner relies on Matsuzaki, stating that Matsuzaki discloses access control messages which depend on a single descrambling key and on conditional access messages (see FOA, p. 13, lines 1-7). The Examiner further states that it would be obvious to use the access control messages in Matsuzaki to "more safely distribute information to

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a specific terminal" (see FOA, p. 12, lines 15-21).

Similar to claim 11, it is respectfully submitted that it would not be obvious to employ access control messages which depend on a single descrambling key and on conditional access control messages between management means of a single communication device, as claimed, in view of the references. Matsuzaki teaches that a random number is encrypted with an encryption key (purported descrambling key) and is transmitted to separate terminal units connected to a server (see, e.g., Matsuzaki, column 7, line 65 to column 8, line 3). In addition, as noted above, the random number is employed to rescrumble signals to ensure security of signals that are transmitted on external connection lines between a server and separate terminals. However, as discussed above, it would not be obvious to apply the rescrumbling method of Matsuzaki to a single device as claimed because it would afford no benefit to do so. Thus, it would not be obvious to use a second management means that receives access control messages which depend on a single descrambling key and on conditional access messages, as recited in claim 12, in view of Matsuzaki. Accordingly, claim 12 is patentable over Gurantz, Ushiyama and Matsuzaki, taken singly or in combination for at least the reasons discussed above. As such, withdrawal of the rejection is respectfully requested.

#### **F. Conclusion**

At least the above-identified features of the pending claims are not disclosed or rendered obvious by the cited references. Accordingly, it is respectfully requested that the Board reverse the rejections of claims 1, 3-6 and 10-12.

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Deposit Account No. 07-0832 as required to correct the error.

Respectfully submitted,

Date: 3/16/10

BY:



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**8. CLAIMS APPENDIX**

1. (Previously Presented) Pay-per-use communication device, in particular for television pictures, comprising:

- at least two input interfaces for receiving first and second scrambled signals bearing information subject to pay-per-use,
- first and second processing pathways having respective first and second descrambling modules able to undertake the conversion of the first and second scrambled signals into first and second descrambled signals and provide the descrambled signals to at least two output interfaces, and
- an access control module able to cooperate with a memory card for conditioning the operation of the first and second processing pathways, the first and second processing pathways comprising respective first and second management means for driving the conversions of the first and second scrambled signals via selected ones of the first and second descrambling modules, and in that the first management means is arranged to communicate with the access control module to obtain a first access control message for allowing conversion of the first scrambled signals, and the second management means is arranged to communicate with the access control module by way of the first management means to obtain a second access control message for allowing conversion of the second scrambled signals.

2. (Cancelled)

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3. (Previously Presented) Device according to Claim 1, wherein the first management means are devised, on the one hand, to receive from the access control module, at predetermined time intervals, the first and second control messages, for the respective conversions of the first and second scrambled signals, and, on the other hand, to transmit the said second control messages to the second management means.
4. (Previously Presented) Device according to Claim 3, wherein the first and second management means respectively comprise a first and a second processor, which are devised so as to respectively drive the first and second descrambling modules for descrambling the first and second scrambled signals.
5. (Previously Presented) Device according to Claim 4, wherein the first processor is able to drive the second processor according to a protocol of the master/slave type.
6. (Previously Presented) Device according to Claim 4, wherein the first and second input interfaces are linked to means for receiving radio frequency waves, and in that the first and second processing pathways respectively comprise frequency converters each adapted to a polarization of the radiofrequency waves transmitted by a satellite.
7. (Cancelled)
8. (Cancelled)



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9. (Cancelled)

10. (Previously Presented) A pay-per-use communication device comprising:

a tuner device, said tuner device having a tuner device output,

a demodulator device, said demodulator device having a demodulator device input operatively coupled to said tuner device output and a demodulator device output;

a demultiplexer device, said demultiplexer device having a demultiplexer control input and a demultiplexer device input, said demultiplexer device input being operatively coupled to said demodulator device output, said demultiplexer device including a plurality of descrambler devices, said plurality of descrambler devices having a respective plurality of descrambler device outputs;

a plurality of decoding block devices, said plurality of decoding block devices including a respective plurality of decoding block device inputs, said plurality of decoding block device inputs being respectively operatively coupled to said plurality of demultiplexer device outputs; and

a controller device, said controller device having a controller device output, said controller device output being operatively coupled to said demultiplexer control input.

11. (Previously Presented) The device according to Claim 1, wherein the first and second access control messages perform cryptographic functions.

12. (Previously Presented) The device according to Claim 11, wherein the first and second

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access control messages depend on a single descrambling key and on conditional access messages.

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9. **RELATED EVIDENCE APPENDIX**

None.

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10. RELATED PROCEEDINGS APPENDIX

None